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EXAMINER	
CHOW, CHARLES CHIANG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,433	HOO ET AL.	
	Examiner	Art Unit	
	Charles Chow	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,11-19,22-30,33 and 36-50* is/are pending in the application.

4a) Of the above claim(s) *9,10,20,21,31,32,34 and 35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,11-19,22-30,33 and 36, 39-41,44-46, 49-50* is/are rejected.

7)☒ Claim(s) *37,38,42,43,47 and 48* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. This office action is for the RCE received on 8/21/2007.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 12-19, 22, 43-45, 41-42 are rejected under 35 U.S.C. 101 because for the independent claims 12, 41, there is no code, executable code, being stored in "A machine-readable storage having stored thereon". For examination purpose, it is assumed that the code is stored in a machine-readable storage having executable code stored thereon.

The dependent claims are also rejected based no the rejected independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 5-6, 12, 16-17, 23, 27-28, 36, 39-40, 41, 44-46, 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich et al. [US 4,704,734] in view of Matsui et al. [US 6,907,094 B2].

For clam 1, Menich et al. [Menich] teaches a method for controlling an antenna system [the method steps for antenna selection in Fig. 20a/20b, in a cellular system, col. 3, lines 1-12; abstract & Fig. 10-19], the method comprising

collecting information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the

storing of digital representation of the signal strength/rf energy data into storage location for the measurement on primary sector antenna, & also on its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17] ; and

determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract, the starting antenna in paragraph for col. 13, line 6; from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

using a majority polling scheme [the pass count N checkup in step 2018 for the looping back to step 2006, to control the number of cycles, two, four, for storing the measured RSSI into bins at step 2010 & the increment antenna number at 2012 in Fig. 20a, as the majority pooling scheme, for the programming the antenna to the strongest signal receiving antenna at step 2026 in Fig. 20b, col. 13,lines 19-59].

Menich fails to teach the determining at least one starting antenna by using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.

Matsui et al. [Matsui] teaches the determining at least one starting antenna by **using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors** [the digital matches filter 16 is performing the summing, at 26, of the weighted delayed data multiplied by plurality of coefficients, the weighting factors, a0 to an-1, 25-1 to 25-n as shown in Fig. 2 & col. 3, line 36 to col. 4, line 2; the antenna selection via controlled switch 13, abstract,/summary of

invention, Fig. 1 & corresponding description in the specification], such that the interference signal could be removed by filtering, to improve the antenna selection. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's filtering with weighted sum for the antenna selection, such the interference signal could be removed by filtering, to improve the antenna selection.

For clams 5, 16, 27, Menich teaches receiving, measuring, signal on said portion of a plurality antennas [primary, left, right, sector antennas]. Menich fails to teach the collecting at least one of a plurality of selection metrics associated with said at least one of said plurality of frames received.

Matsui teach the collecting at least one of a plurality of selection metrics associated with said at least one of said plurality of frames received [the plurality of metrics associated with frame, such as the peak level associated with maximum correlation, the BER can be found using estimated SNR, the superior interference resistance of the receiving device, col. 4, lines 29-46].

For clams 6, 17, 28, Menich fails to teach the wherein said at least one or more of a plurality of selection metrics comprises one or more of a power estimation, a signal to noise ratio, a bit error rate a channel interference level.

Matsui teaches the wherein said at least one or more of a plurality of selection metrics comprises one or more of a power estimation, a signal to noise ratio, a bit error rate a channel interference level [the plurality of metrics associated with frame, such as the peak level associated with maximum correlation, the BER can be found using estimated SNR, the superior interference resistance of the receiving device, col. 4, lines 29-46].

For clam 12, Menich teaches a machine-readable storage having executable code stored thereon, a computer program having at least one code section for controlling an

antenna system [the microprocessor MC6809 provides controls according to the stored programmed steps, code section, in RAM & EPROM, the integral microcomputer of the signal strength detector in col. 10, line 63 to col. 11, line 30; & microprocessor 1302 reads & processes the retrieved signal strength information in col. 12, line 12, line 36 & line 54],

at least one code section being executable by a machine for causing the machine to perform steps [the code section in steps in Fig. 20a to Fig. 21 & code section for the functions performed in Fig. 17] comprising

collecting information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the storing of the digital representation of the signal strength/rf energy data into storage locations for the measurement on primary sector antenna & its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17] ; and

determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation, & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract, from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12].

Menich fails to teach the determining at least one starting antenna by using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.

Matsui teaches the determining at least one starting antenna by **using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors** [the digital matches filter 16 is performing the summing, at

26, of the weighted delayed data multiplied by plurality of coefficients, the weighting factors, a0 to an-1, 25-1 to 25-n as shown in Fig. 2 & col. 3, line 36 to col. 4, line 2; the antenna selection via controlled switch 13, abstract,/summary of invention, Fig. 1 & corresponding description in the specification], such that the interference signal could be removed by filtering, to improve the antenna selection. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's filtering with weighted sum for the antenna selection, such the interference signal could be removed by filtering, to improve the antenna selection.

For clam 23, Menich teaches a system for controlling an antenna system [col. 4, lines 10-13, Fig. 10 to Fig.19], the system comprising

a processor [1302, col. 8, lines 46-57; col. 12, line 12, line 36 & line 54] collecting information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the storing of the digital representation of the signal strength/rf energy data into storage locations for the measurement on primary sector antenna & its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17] ; and

a processor [1302] determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation, & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract, from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

Menich fails to teach the determining at least one starting antenna by using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.

Matsui teaches the determining at least one starting antenna by **using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors** [the digital matches filter 16 is performing the summing, at 26, of the weighted delayed data multiplied by plurality of coefficients, the weighting factors, a0 to an-1, 25-1 to 25-n as shown in Fig. 2 & col. 3, line 36 to col. 4, line 2; the antenna selection via controlled switch 13, abstract,/summary of invention, Fig. 1 & corresponding description in the specification], such that the interference signal could be removed by filtering, to improve the antenna selection. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's filtering with weighted sum for the antenna selection, such the interference signal could be removed by filtering, to improve the antenna selection.

For clam 36, Menich teaches a method for controlling an antenna system [the method steps for antenna selection in Fig. 20a/20b, in a cellular system, col. 3, lines 1-12; abstract & Fig. 10-19], the method comprising

collecting information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the storing of digital representation of the signal strength/rf energy data into storage location for the measurement on primary sector antenna, & also on its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17] ; and

determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract, the starting antenna in paragraph for col. 13, line 6; from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

using a majority polling scheme [the pass count N checkup in step 2018 for the looping back to step 2006, to control the number of cycles, two, four, for storing the measured RSSI into bins at step 2010 & the increment antenna number at 2012 in Fig. 20a, as the majority pooling scheme, for the programming the antenna to the strongest signal receiving antenna at step 2026 in Fig. 20b, col. 13,lines 19-59].

Menich fails to mention the antenna for receiving a plurality of frames.

Matsui teaches the antenna can receive a plurality of frames [the antenna received frame is in the format shown in Fig. 3, col. 4, lines 3-12], in order to upgrade the receiver for operating on the received frame. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's received frames on antennas, such that the receiver could be upgraded for operating on the received frames.

For claims 39, 44, 49, Menich teaches the wherein said collected information is collected received signal power information [the sequentially sampled signal strength in abstract; the storing of digital representation of the signal strength, signal power, into storage location for the measurement on primary sector antenna, & also for the adjacent left, right, sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17].

For claims 40, 45, 50, Menich fails to teach the filtering associated with the different weighting factors.

Matsui teaches the filtering said collected received signal power information based on said plurality of different weighting factors when utilizing said weighted sum filtering scheme [the filter 16 in Fig. 2 utilizing plurality of coefficients a0 to an-1, as the weighting factors, to be added at 26, col. 3, line 36 to col. 4,line 2].

For clam 41, Menich teaches a machine-readable storage having executable code stored thereon, a computer program having at least one code section for controlling an antenna system [the microprocessor MC6809 provides controls according to the stored programmed steps, code section, in RAM & EPROM, the integral microcomputer of the signal strength detector in col. 10, line 63 to col. 11, line 30; & microprocessor 1302 reads & processes the retrieved signal strength information in col. 12, line 12, line 36 & line 54],

at least one code section being executable by a machine for causing the machine to perform steps [the code section in steps in Fig. 20a to Fig. 21 & code section for the functions performed in Fig. 17] comprising

collecting information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the storing of digital representation of the signal strength/rf energy data into storage location for the measurement on primary sector antenna, & also on its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17]; and

determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation & the strongest signal along with an identification of

receiving antenna, as the starting antenna, are determined in abstract, the starting antenna in paragraph for col. 13, line 6; from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

using a majority polling scheme [the pass count N checkup in step 2018 for the looping back to step 2006, to control the number of cycles, two, four, for storing the measured RSSI into bins at step 2010 & the increment antenna number at 2012 in Fig. 20a, as the majority pooling scheme, for the programming the antenna to the strongest signal receiving antenna at step 2026 in Fig. 20b, col. 13,lines 19-59].

Menich fails to mention the antenna for receiving a plurality of frames.

Matsui teaches the antenna can receive a plurality of frames [the antenna received frame is in the format shown in Fig. 3, col. 4, lines 3-12], in order to upgrade the receiver for operating on the received frame. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's received frames on antennas, such that the receiver could be upgraded for operating on the received frames.

For clam 46, Menich teaches a system for controlling an antenna system [the method steps for antenna selection in Fig. 20a/20b, in a cellular system, col. 3, lines 1-12; abstract & Fig. 10-19], the method comprising

a processor [the microprocessor 1302 reads & processes the retrieved signal strength information in col. 12, line 12, line 36 & line 54] collects information associated with at least one of a plurality of samples received by a portion of a plurality of antennas [the sequentially sampled signal strength in abstract; the storing of digital representation of the signal strength/rf energy data into storage location for the measurement on primary sector

antenna, & also on its adjacent left, right, sector antennas, as the portion of a plurality sector antennas, col. 2, line 54 to col. 3, line 12; col. 11, line 31 to col. 12, line 38 , Fig. 17] ; and

a processor [the microprocessor 1302 reads & processes the retrieved signal strength information in col. 12, line 12, line 36 & line 54] determines at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract, the starting antenna in paragraph for col. 13, line 6; from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

using a majority polling scheme [the pass count N checkup in step 2018 for the looping back to step 2006, to control the number of cycles, two, four, for storing the measured RSSI into bins at step 2010 & the increment antenna number at 2012 in Fig. 20a, as the majority pooling scheme, for the programming the antenna to the strongest signal receiving antenna at step 2026 in Fig. 20b, col. 13,lines 19-59].

Menich fails to mention the antenna for receiving a plurality of frames.

Matsui teaches the antenna can receive a plurality of frames [the antenna received frame is in the format shown in Fig. 3, col. 4, lines 3-12], in order to upgrade the receiver for operating on the received frame. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich with Matsui's received frames on antennas, such that the receiver could be upgraded for operating on the received frames.

4. Claims 2-3, 13-14, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich in view of Matsui, as applied to claims 1, 12, 23 above, and further in view of Xu

[US 2004/0203,550 A1].

For clams 2, 13, 24, Menich & Matsui fail to teach which portion for the wherein said portion of a plurality of antennas are receiving antennas and a remaining portion of said plurality of antennas are transmitting antennas.

Xu teaches these features [the Vant_1 to Vant_M, Vtx, Vrx are the antenna control signals for selecting antenna portion for receiver 204 and remaining antenna portion for transmitter 202, abstract, paragraph 0012], to improve the antennas switching, for sharing antennas to a receiver & a transmitter by the simple, low loss, high isolation, diode switching circuit [0002]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich, Matsui with Xu's antenna switching, in order to improve antenna switching with the better switches, simple, low loss, high isolation.

For clams 3, 14, 25, Menich teaches the method comprising selecting said at least one starting antenna from said receiving antennas [the selecting of one receiving, starting, antenna from primary, left, right sector antennas abstract, col. 3, lines 1-12; the code for steps executed by microprocessor 1320, Fig. 20a-21 for measurement process and antenna selection process, col. 4, lines 1-6].

5. Claims 4, 15, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich in view of Matsui, Xu, as applied to claims 2, 13, 24 above, and further in view of Akerberg [US 6,553,078 B1].

For clams 4, 15, 26, Menich, Matsui, Xu fail to teach the selecting said at least one starting antenna from transmitting antennas.

Akerberg teaches the selecting said at least one starting antenna from said transmitting antennas [the selecting a starting antenna from antennas A1, A2 for transmitting next down

link burst, in col. 4, lines 51-56; the code section for steps in Fig. 6 & the processor executes program for CU-BS & P-BS in col. 4, lines 12-16], the antenna selection based on the previously stored BER data, threshold, col. 4, lines 27-56], in order to select best antenna based on the stored BER data. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich, Matsui, Xu with Akerberg's BER of uplink frames, in order to improve the quality of the uplink frames with better BER via a selected antenna.

6. Claims 7, 18, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich in view of Matsui, as applied to claims 5, 16, 27 above, and further in view of Lyons et al. [US 2005/0095,987 A1].

For clams 7, 18, 29, Menich, Matsui fail to teach the selecting at least one metric from plurality of selection metrics.

Lyons et al. [Lyons] teaches the selecting at least one of said at least one of a plurality of selection metrics to determine said at least one starting antenna [the antenna selection based on the signal power Rssi or based on the relative error vector magnitude EVM associated with error distance in paragraph 0116-0117, abstract, Fig. 1; the processor 735 executes program stored in memory 737, paragraph 0040-0041, the executed instruction & program code in paragraph 0140-0141], in order to select one antenna based on different metrics to improve the signal quality. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich, Matsui with Lyons' Rssi, EVM, in order to improve the quality with rssi or EVM.

7. Claims 8, 19, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich

in view of Matsui, as applied to claims 1, 12, 23 above, and further in view of Rozanski [US 5,530,926].

For clams 8, 19, 30, Menich, Matsui fail to teach the features for this claim. Rozanski teaches the selecting at least one of said at least one of a plurality of frames to determine said at least one starting antenna [the code steps 63-65, the measuring first, second half of slot N-1, col. 4, lines 16-37 & in a frame in col. 4, lines 63-67, for accurately determine the signal power level, for next starting antenna selection], in order to accurately controlling the starting antenna selection by measuring the power in two halves of a slot. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Menich, Matsui with Rozanski's two half power of a slot in a frame for the determining of the antenna selection, in order to accurately control the antenna selection based on the measured power for two halves of a time slot of a frame.

8. Claims 11, 22, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menich in view of Ishihara, as applied to claims 1, 12, 23 above, and further in view of Banister [US 6,456,647 B1].

For clams 11, 22, 33, Menich & Matsui fail to teach the features for this claim. Banister teaches the wherein said weighted sum scheme corresponds to the response of a first-order Infinite Impulse Response IIR filter or to the response of a Finite Impulse Response FIR filter [the antenna selection is based on the weight factor derived from simple, single tap, first order, IIR filter or the response of FIR, col. 7, lines 14-23 & col. 13, lines 24-34; it is well known that IIR filter or FIR filter is implemented in software code], in order to correctly decode a symbol [abstract]. Therefore, It would have been obvious to one

of ordinary skill in the art at the time the invention was made to upgrade Menich, Matsui with Banister's IIR, FIR filter, such that the symbol could be correctly decoded.

Claims Objection

9. Claims 37-38, 42-43, 47-48, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The cited prior arts fails to teach the limitation features in **clam** 37, for the selecting said determined at least one **starting antenna based on the number of times said determined** at least one starting antenna **has been previously selected over a predetermined number** of said received plurality of frames when utilizing said majority polling scheme.

The cited prior arts fails to teach the limitation features in **clam** 38 for the **code for generating** said plurality of different weighting factors based on one or both of a selected filtering format and a determined number of said plurality of frames received by said portion of said plurality of antennas.

Other references being considered. They are: **Jager [US 6,067,449], Kasami et al. [US 2005/0113,038 A1], Jimi et al. [US 7,221,923 B2], Kawakami [US 2005/0123,083 A1], Takahashi et al. [US 5,634,204], Taromaru [US 5,548,836], Kakura et al. [US 6,415,141 B1], Mueller et al. [US 2005/0009,492 A1], Choi et al. [US 6,090,665 B1], Harrison [US 6,983,172].**

Response to Argument

10. Applicant's arguments with respect to claims 1-8,11-19,22-30,33 and 36, 39-41,44-46, 49-50 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant amendment is based on the argument of no teaching from the prior arts, for the determining at least one starting antenna form said plurality of antennas based on said collected information received by said portion of said plurality of antennas **using a majority polling scheme**; or/together with the **using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors** [pages 15-19 of applicant amendment 8/21/20007],

Menich-'734 teaches the determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas [the recalling of the stored digital representation & the strongest signal along with an identification of receiving antenna, as the starting antenna, are determined in abstract; the starting antenna in paragraph for col. 13, line 6; from a portion of the plurality sector antennas, primary, left, right antennas, col. 3, lines 1-12],

using a majority polling scheme [the pass count checkup in step 2018 for looping back to step 2006, for controlling the number of cycle for storing the measured RSSI into bins at step 2010, increment antenna number at 2012 in Fig. 20a, as the majority pooling scheme, for the programming the antenna to the strongest signal receiving antenna at step 2026 in Fig. 20b, col. 13, lines 19-59;

Matsui et al. [US 6,907,094 B2] teaches the determining at least one starting antenna by **using the weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors** [the digital matches filter 16 is performing the summing, at 26, of the weighted chip data with plurality of weighting factors, a0 to an-1, 25-1 to 25-n as shown in Fig. 2 & col. 3, line 36 to col. 4, line 2; the antenna selection via controlled switch 13, abstract,/summary of invention, Fig. 1 & corresponding

description in the specification], such that the interference signal could be removed by filtering, to improve the antenna selection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow CC.

September 5, 2007.

EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600